Chapter 6

TREATMENT FOR ACUTE STRESS AND PTSD FOLLOWING RAPE

Amy E. Naugle, Heidi S. Resnick, Matt J. Gray, and Ron Acierno

INTRODUCTION

The primary goal of this chapter is to provide the reader with an overview of cognitive-behavioral strategies for treating acute stress reactions and PTSD. Intervening as early as possible post-assault may be effective in reducing longer term, chronic symptomatology; however, this needs to be demonstrated empirically. In order to place cognitive-behavioral treatment strategies outlined in the chapter within a coherent framework, we first offer a behavioral conceptualization for understanding the development of PTSD symptoms among rape victims. In the section that follows, we describe several cognitive-behavioral treatment techniques, many of which have been shown to be effective in reducing symptoms of anxiety characteristic of PTSD. Intervention strategies presented in the chapter are primarily a summary of extant cognitive-behavioral treatments for PTSD that are described in greater detail in other sources. We also describe a video-based program that has been implemented into a hospital emergency department setting and has preliminarily produced some encouraging results. Finally, we offer a section on additional factors that should be considered when planning and executing treatment with rape victims.

The Trauma of Sexual Assault. Edited by Jenny Petrak and Barbara Hedge.

A CONCEPTUAL FRAMEWORK FOR UNDERSTANDING PTSD

Existing cognitive-behavioral treatments available for rape victims evolved directly out of a behavioral tradition. We believe that it is imperative for clinicians to be well grounded in the classical conditioning and operant learning principles from which the treatments are derived. Approaching treatment from a coherent theoretical perspective allows the clinician to apply treatment strategies with more flexibility, and to effectively tailor the treatment plan to the individual. Moreover, the clinician can more effectively explain the treatment rationale to the client in a clear and convincing way.

CLASSICAL CONDITIONING

A classical conditioning model can explain the etiology of many posttrauma reactions, particularly anxiety or physiological arousal symptoms (Keane, Zimering, and Caddell, 1985; Kilpatrick, Veronen, and Resick, 1982; Foa, Steketee, and Rothbaum, 1989). Central to this model is the notion that stimuli that are associated with the sexual assault come to elicit a conditioned response that is similar to the unconditioned response experienced at the actual time of the trauma. At a concrete level, the experience of rape can be viewed as a classical conditioning situation in which aspects of the rape, such as actual or threat of injury, operate as unconditioned stimuli. During the rape, an unconditioned response is elicited, such as pain or intense feelings of fear and anxiety. At the time of the assault, there are certain previously neutral situations or elements of the rape situation that are paired with the sexual assault experience and become conditioned stimuli for the conditioned response of fear and avoidance; for example, specific physical characteristics of the perpetrator (e.g., a beard) or certain smells (e.g., alcohol on the perpetrator's breath) may become conditioned to elicit conditioned fear responses similar to the original unconditioned response. Through the process of stimulus generalization and second-order conditioning, stimuli associated with the original feared stimuli and the conditioned stimuli can also evoke a fear or anxiety reaction; that is, a victim may become anxious when interacting with any man with a beard, or may experience physiological arousal when her boyfriend is drinking alcohol even though this scenario had never bothered her in the past.

OPERANT CONDITIONING

Operant learning theory explains behavior by examining the environmental conditions under which the behavior occurs. Kilpatrick *et al.* (1982) also

applied an operant analysis specifically to their understanding of symptomatology among rape victims. As the environmental conditions change, so does behavior. By environmental conditions, we mean both the antecedents and consequences of behavior. Antecedents are the environmental stimuli that precede behavior. Consequences (generally thought of as either reinforcing or punishing) are those stimuli that follow behavior and have a direct influence on the probability of its occurrence. 'Positive reinforcement' is used to describe the delivery of environmental stimuli that strengthen behavior and increase the likelihood of it occurring in the future. 'Negative reinforcement' also strengthens behavior but through the removal of an aversive stimulus. Escape and avoidance behaviors are examples of the principle of negative reinforcement. In order to escape intrusive thoughts about her sexual assault, a rape victim may have a beer or two or may avoid going to work. In this example, drinking alcohol or staying away from work are negatively reinforced in that these behaviors allow an individual to avoid the negative consequences (i.e., physiological arousal and intrusive thoughts). A careful analysis of the environmental conditions that maintain specific escape and avoidance behaviors is essential (Naugle and Follette, 1999) in order to tailor exposure-based strategies to the individual client.

Many of the treatment strategies we will discuss follow directly from these behavioral underpinnings; for example, exposure-based interventions involve having the client confront feared conditioned stimuli in the absence of the original unconditioned stimuli until the conditioned fear response dissipates (known as the process of extinction). This can be accomplished through a number of different techniques, including systematic desensitization, *in vivo* exposure, and imaginal exposure.

COGNITIVE PRINCIPLES

In contrast to learning and conditioning theories, cognitive theories of psychopathology assert that distressing emotional reactions result from one's interpretations of events that evoke psychological distress (e.g., Resick and Schnicke, 1993); for example, rape victims often engage in self-blaming statements following a sexual assault. A victim may tell herself such things as 'I shouldn't have flirted with him like that' or 'I shouldn't have been walking at night by myself.' Such self-blaming thoughts can evoke feelings of guilt. In addition, after a sexual assault, a rape victim may perceive that she or he has no control over interpersonal situations. Such perceptions may lead to feelings of fear which interfere with the victim's ability to engage in relationships effectively.

Cognitive restructuring focuses on targeting dysfunctional patterns of thinking that lead to exaggerated emotional responses. As clients become aware of these problematic ways of perceiving themselves and their environment, the dysfunctional thoughts are corrected and replaced with more effective ways of thinking. Cognitive restructuring is a component of many treatment packages for PTSD, including Stress Inoculation Training (SIT: Kilpatrick *et al.*, 1982) and Cognitive Processing Therapy (Resick and Schnicke, 1993).

Additional models for understanding the development of PTSD symptoms have been proposed. Most of these models are adaptations, explications, or combinations of the basic behavioral and cognitive principles outlined above. Detailed descriptions of these additional theoretical models are beyond the scope of this chapter. However, relevant aspects of the theories will be discussed in reference to specific treatment modalities when warranted.

COGNITIVE-BEHAVIORAL STRATEGIES FOR TREATING RAPE VICTIMS

Orienting the Client to Treatment

Prior to implementing any specific cognitive-behavioral techniques, the first session following assessment should be used to provide feedback to the client and to develop a treatment plan. In our work with sexual assault victims, we provide education regarding common responses to sexual assault, explain the theoretical foundations of stress reactions, and provide a framework for the cognitive-behavioral interventions to be used over the course of treatment (see Example 6.1).

Example 6.1

Sexual assault is a traumatic event that is often emotionally shocking. While each person may respond to trauma in her or his own unique way, many of the problems you have described to me are common or typical reactions that victims experience following a sexual assault. We call these responses post-traumatic stress reactions.

The most common reaction to sexual assault is *fear*. At the time of the sexual assault itself, many victims experience intense fear—fear of being physically injured and even fear of being killed. For many victims, the fear response occurs again, after the rape, when one is confronted with sights, sounds,

smells, thoughts, places, situations, people, etc. that remind her or him of the sexual assault. Many victims repeatedly think about the sexual assault when they don't want to or have dreams about it. Sometimes, the thoughts and memories seem real, as if the sexual assault is occurring again. We call this a flashback.

Following a sexual assault, many victims also experience a number of problems that are the result of heightened physical arousal. These include sleep problems, having trouble concentrating, feeling restless and irritable, and being more jumpy or on edge than usual. This physical arousal can also be extremely distressing. One of the goals of treatment is to teach you ways of decreasing your level of physical arousal so that you are able to deal more effectively with the demands of daily living.

Finally, I want to mention a third set of reactions often described by people who have experienced a traumatic event. In an attempt to control the physical and mental aspects of fear, many victims go to great lengths to avoid persons, places, things, and situations that remind them of the assault. Some victims become so fearful they greatly restrict their activities and are even unable to leave their homes or be left alone. While avoiding these reminders may alleviate discomfort in the short term, it can interfere with daily functioning, as well as get in the way of resolving the sexual assault and dealing effectively with the experience. The treatment approach we use will address each of these problems. I will explain specific strategies in much more detail as we go along. Overall, the goal is for us to work together as a team to reduce the symptoms you are experiencing as efficiently as possible.

(modified from Kilpatrick *et al.*, 1982)

The treatment rationale presented in Example 6.1 is an abbreviated version of what is covered in the initial session following assessment. During this session, it is important to use examples of the individual client's presenting problems and unique situation to illustrate the information outlined above. Basically, the goal of the initial session is to provide clients with information regarding acute stress reactions and PTSD, to normalize their experience, and to begin developing a rationale for the specific intervention strategies that will be utilized.

Strategies for Managing Physiological Arousal and Anxiety

We have found that teaching clients anxiety-management strategies is a useful first step in treatment. Indeed, many of our clients report that these

strategies provide them with some immediate relief from their distress. The skills are relatively easy to learn and implement. The primary goal of anxiety-management exercises is to decrease the physiological arousal many rape victims experience following a sexual assault to less distressing levels. We are careful to explain to clients that the goal of these anxiety-management strategies is to help them *manage* the anxiety, not eliminate it. Anxiety is an unavoidable aspect of life. We are interested in providing clients with tools that allow them to manage the anxiety and function more effectively.

Anxiety-management skills are taught and rehearsed during therapy sessions. Clients are also instructed to practice the strategies on a daily basis in order to maximize effectiveness. We have found it useful to provide clients with a daily practice card for them to record rehearsal of exercises, as well as to monitor their level of subjective distress on a daily basis. An example of a practice card is provided in Figure 6.1.

Progressive Muscle Relaxation Skills

Several different approaches to muscle-relaxation training are offered in the literature on the treatment of anxiety. The relaxation skills described in this chapter are based on the Jacobsonian tension-relaxation contrast method (Jacobson, 1938). During the first session, clients are taught to relax all major muscle groups. Therapists should be prepared to demonstrate procedures for each muscle group for the client. In addition, an audiotape of the session should be made so that the client can practice the skills between sessions. It should be emphasized that learning relaxation skills, like learning any new skill, requires a great deal of practice. Clients should be encouraged to incorporate specific relaxation skills into a variety of their daily activities.

Foa and Rothbaum (1998) provide a detailed explanation of the relaxation procedure that they incorporate into their work with sexual assault victims. Clients are instructed to focus on each muscle group as the procedure progresses. The tension phase should last approximately 10 sec, followed by a 30-sec relaxation phase for each muscle group. During the relaxation phase, the clinician may want to make statements to encourage clients to relax such as 'Allow your muscles to completely relax' or 'Notice how different your muscles feel when they are relaxed'. Table 6.1 offers a list of the muscle groups on which the client is asked to focus.

ANXIETY MANAGEMENT SKILLS PRACTICE RECORD

	Type of skill used RT = Relaxation DB = Deep breathing GT = Guided imagery	Anxiety before practice (0–10)	Anxiety after practice (0–10)
Monday a.m.			
Monday p.m.			
Tuesday a.m.			
Tuesday p.m.			
Wednesday a.m.			
Wednesday p.m.			
Thursday a.m.			
Thursday p.m.			
Friday a.m.			
Friday p.m.			
Saturday a.m.			
Saturday p.m.			
Sunday a.m.			
Sunday p.m.			

Figure 6.1 Anxiety management skills weekly homework card.

Breathing Control Skills

Sexually assaulted individuals often experience symptoms of panic, including hyperventilation (Falsetti and Resnick, 1997). Strategies that emphasize slow, diaphragmatic breathing can be extremely beneficial to these individuals. The breathing retraining techniques developed by Barlow and Craske (1989) are particularly helpful in teaching sexual assault victims to change their breathing patterns. A primary goal of deep-breathing exercises is to teach clients how to slow down their breathing. The exercises first require that clients take in normal, smooth breaths through the nose and exhale slowly and smoothly through the mouth. At the same time, clients are encouraged to focus on their breathing. Through

Table 6.1 Muscle groups for relaxation training

Muscle group	Tension phase (hold for 10-sec)	Relaxation phase (hold for 30-sec)
Arms and hands		
Fists	Clench fists	Relax fists
Wrists	Bend wrists backward	Let hands relax
Biceps	Flex biceps	Relax biceps
Neck and shoulders		
Shoulders	Raise shoulders to ears	Drop shoulders
	Push shoulders back into chair	Relax shoulders and chest
Neck	Tilt head to left/right shoulder	Raise head
	Tuck chin toward chest	Raise head
Face and jaw		
Jaw	Clench jaw	Relax jaw
	Open mouth wide	Close mouth and relax
Face	Close eyes tightly	Relax eyes (but keep closed)
	Wrinkle forehead	Relax forehead
Stomach	Tighten stomach	Relax stomach
Buttocks	Tighten buttocks	Relax buttocks
Back	Arch back	Relax back
Legs and feet	Stretch out left/right leg and bend toes back	Relax legs and toes
	Stretch out left/right leg and point toes forward	Relax legs and toes
	Curl up toes inside shoe	Relax toes

this focus, clients can learn to slow down their breathing to a rate of about 10 breaths per minute. Again, clients are asked to practice this exercise between sessions.

Guided Imagery

Guided imagery is another technique that clients may find useful in managing anxiety and facilitating relaxation. Visualization exercises generally involve having the client imagine herself or himself in a pleasant, peaceful setting. The clinician then guides the client through this positive scene, while, simultaneously, having them focus on becoming increasingly relaxed. The visualization exercises use language that concentrates on the senses and reference to vivid details. Such guided imagery allows

clients to become relaxed, instead of focusing on their anxious thoughts and feelings. Many of the muscle relaxation and breathing techniques described above can be incorporated into the guided imagery exercises.

Strategies for Managing Problematic Cognitions

Some evidence suggests that the ways sexual assault victims think about and appraise their assault experience are directly related to post-trauma symptomatology; for example, one conceptualization, information processing theory (Resick and Schnicke, 1993), outlines how sexual assault impacts how one thinks about and perceives the world. The concept of *schema* is used to describe how individuals encode, organize, and recall information. Schemata are believed to interact with and influence attention, interpretations, and retrieval of incoming information. When a person is sexually assaulted, this experience is often inconsistent with one's existing beliefs or schemata. Therefore, in order to make sense of the experience, sexual assault victims adapt in one of two ways. They alter or distort the experience into their existing beliefs (assimilation; e.g., blame themselves) or they shift their beliefs to incorporate the new experience (accommodation). Often, rape victims make extreme accommodations in their belief systems, which can significantly interfere with functioning. Victimization experiences are thought to affect five major areas or themes: safety, trust, power, esteem, and intimacy (McCann, Sakheim, and Abrahamson, 1988; Resick and Schnicke, 1993). The primary goal of cognitive techniques is to address these, as well as other, maladaptive patterns of thinking about and perceiving oneself and one's environment.

Cognitive Restructuring

Cognitive restructuring is designed to reduce psychological distress by teaching clients to identify and change dysfunctional thoughts and beliefs (Beck, Rush, Shaw, and Emery, 1979; Foa and Rothbaum, 1998). By teaching clients more realistic ways of thinking about themselves and the world, the goal is to enhance coping skills for dealing with the world in general and trauma-related situations in particular. Negative or dysfunctional thoughts following a sexual assault can become automatic for the client; that is, they may be perceived to 'come out of nowhere'. Treatment assists clients in identifying these automatic thoughts and understanding how they are associated with negative feelings. The goal is then to work with the client to differentiate between realistic and unrealistic ways of thinking about and perceiving the world. Cognitive restructuring involves

generating and challenging hypotheses through questioning and drawing attention to inconsistencies between clients' thoughts and the available evidence.

During treatment, the therapist's job is to watch for examples of dysfunctional thinking. When dysfunctional thoughts or beliefs are identified, the task is to assist clients in challenging the problematic statements. Clients are encouraged to challenge maladaptive cognitions by asking themselves questions about the thought or belief. It is helpful to present an outline of these questions for clients to refer to between sessions. Again, clients benefit by incorporating cognitive restructuring techniques between therapy sessions. Homework exercises that require clients to monitor irrational thought patterns and challenge irrational beliefs provide useful information to address in subsequent treatment sessions (see Figure 6.2).

Guided Self-Dialogue

This coping skill involves teaching clients to attend to what they are saying to themselves and to replace irrational, negative self-talk with more reasonable, effective self-dialogue. Guided self-dialogue skills have been adapted for rape victims from Meichenbaum's (1985) stress inoculation training examples (Kilpatrick *et al.*, 1982; Veronen and Kilpatrick, 1983). The coping skill requires clients to generate specific self-statements and questions across four categories: (1) preparing for a stressful situation; (2) confronting and managing a stressful situation; (3) coping with overwhelming feelings; (4) reinforcing or encouraging self-statements. The statements are designed to address target fears unique to the individual client. Writing the self-statements on note cards allows clients to take them home and practice outside of treatment. Clients are encouraged to utilize these coping skills for managing everyday stressors or difficulties.

Strategies for Managing Ineffective Behavior

Role Play

Role playing is a broadly applicable technique for correcting ineffectual behaviors and practicing more adaptive behaviors. With respect to trauma-related behavioral deficits, the most common ineffective behavior is avoidance of anxiety-provoking situations, settings, and individuals. As stated previously, avoidance of trauma-related cues is remarkably prevalent because it yields a short-lived reduction in anxiety. Unfortunately,

MY THOUGHT RECORD

Thought or belief:
Situation in which thought/belief arose:

Strength of belief (1 to 10):

1 2	3 4 5	6 7 8	9 10
Not at all strong	Somewhat strong	Moderately strong	Extremely strong

What I am feeling:
Questions to ask yourself:
On a scale from 1 to 100, how realistic is the belief?
What are the facts? Facts that support the belief: Facts that counter the belief:
How is the information relevant?
What words indicate I am thinking in extremes?
Am I basing my actions on feelings or facts?
What aspects of the situation am I disregarding?
I could say this to myself instead:
And then I would feel:

Figure 6.2 Sample record for challenging thoughts and beliefs.

such avoidance serves to maintain disorders such as ASD and PTSD in the long run. The utility of role playing is that it provides an opportunity to rehearse potentially anxiety-provoking encounters with individuals, situations, or settings that are reminiscent of the original traumatic event, in an objectively safe environment. This form of behavioral rehearsal serves to reduce anxiety and to enhance the likelihood of successfully confronting previously avoided stimuli.

Foa and Rothbaum (1998) provide guidelines for appropriate use of role play in therapy. As a general rule, the therapist should model the appropriate behavior first. After the client rehearses the behavior in question (e.g., declining a sexual advance), it is important that the therapist reinforce positive aspects of the role play and praise him or her for engaging in appropriate behaviors in addition to citing areas in need of improvement. These authors also note that it is prudent to begin with more innocuous or benign scenarios before proceeding to more fear-eliciting scenarios such as situations related to the traumatic event. This allows for successful experiences using role play techniques, which may facilitate the use of role playing for more difficult scenarios.

Goldfried and Davison (1994) note that some clients are initially resistant to the idea of role playing, believing it to be too contrived or awkward. As they correctly point out, it is necessary to communicate to such clients that any new behavior initially seems awkward. The advantage of rehearsing the behavior (e.g., assertiveness) with the therapist is that initial, awkward attempts occur in a setting in which mistakes are inconsequential. With practice, the new behavior becomes more natural and the client can engage in that behavior more adeptly in real life situations.

Covert Modeling

A variant of role playing is covert modeling. In essence, this technique represents imaginal role playing; that is, instead of actually acting out a scenario with a therapist, the client visualizes himself or herself successfully confronting a fear-provoking situation (Calhoun and Resick, 1993). This technique may be used as an adjunct to role play. A client may rehearse a scenario in session with the therapist, and may then employ covert modeling between sessions to enhance performance.

Although covert modeling can be a valuable therapeutic technique, some words of caution are warranted. Specifically, it is essential that the therapist determine whether the client is, in fact, visualizing behavior that is adaptive and effective. If the client does not know what constitutes appropriate or effective behavior in a given situation, covert modeling will be fruitless. It is worthwhile to have the client vividly describe, in session, the

scenario and his or her behavior (Foa and Rothbaum, 1998). In this manner, the therapist can determine whether skills training or behavioral rehearsal is warranted. Finally, because avoidance of anxiety-provoking, trauma-related cues is a hallmark of PTSD and ASD, the therapist must recognize that covert rehearsals of anxiety-provoking situations may be tempting for clients to avoid. Accordingly, the therapist should discuss this possibility with clients, and should provide a compelling explanation of the merits of this technique in treating ASD or PTSD.

EXPOSURE-BASED INTERVENTIONS

Exposure-based treatments for ASD and PTSD follow logically from etiological models that are informed by learning theory. To review, a traumatic event such as a sexual assault results in an unconditioned response of intense fear, helplessness, or horror. Previously neutral stimuli that are present at the time of the traumatic event (e.g., the smell of alcohol) are paired with these feelings of intense fear or anxiety, such that they are subsequently capable of eliciting similar feelings of fear or anxiety long after the actual traumatic event. Repeated exposure to these stimuli in the absence of actual threat or harm will eventually result in a reduction of anxiety, as conditioned fear to these stimuli gradually extinguishes. Unfortunately, because trauma victims often go to great lengths to avoid cues or reminders of their traumas, such extinction or fear habituation does not occur, resulting in chronic psychopathology. The purpose of exposure-based therapies, then, is to allow the trauma victim to encounter anxiety-eliciting trauma cues for a longer duration such that fear associated with these cues may extinguish.

Individuals suffering from ASD and PTSD experience fear when faced not only by external trauma cues, but also by the memory of the traumatic event (Rothbaum and Foa, 1992). Because of this, such individuals typically avoid thinking about or recalling the traumatic event. Accordingly, exposure-based techniques involve confronting external stimuli and situations reminiscent of the traumatic event (i.e., *in vivo* exposure), as well as memories of the trauma (i.e., imaginal exposure). *In vivo* exposure involves purposely confronting typically avoided situations or trauma cues. For victims of rape and sexual assault, this may include reading newspaper articles or watching television programs related to sexual assault or engaging in intimate behaviors with significant others (Foa and Rothbaum, 1998). As with role playing techniques, it may be prudent to begin with relatively less distressing stimuli or activities. Only situations that are objectively safe should be used for the purposes of *in vivo* exposure. When exposed to fear-eliciting stimuli, clients must

continue exposure until significant anxiety reduction (i.e., habituation) has occurred. To terminate an exposure session while the client is still significantly distressed is counter-therapeutic in that it reinforces pathological avoidance and may increase anxiety related to the trauma cue in question. When using *in vivo* exposure, clients rate their anxiety from 1–100 when initially exposed to the trauma cue. It is generally recommended that the exposure session continue until the client's anxiety has fallen to no more than 50% of the initial rating (Foa and Rothbaum, 1998). These sessions should be repeated frequently until initial exposure to the feared stimulus does not produce substantive fear or anxiety.

Imaginal exposure requires that the client vividly imagine the traumatic event to allow the severe anxiety surrounding the traumatic memory to dissipate. The purpose of imaginal exposure is not to render the traumatic memory neutral. Even after successful therapy, the memory will invariably continue to be unpleasant. Following successful exposure therapy, however, the traumatic memory does not result in severe or incapacitating fear and anxiety.

During the initial, imaginal exposure session, the level of detail that the client provides is not important. It is more important that the client experience a successful exposure session as evidenced by a reduction in anxiety when thinking about the traumatic event. During subsequent exposure sessions, the client should be encouraged to describe the event in as much detail as possible—including thoughts or fears he or she may have been experiencing at the time, physiological reactions (e.g., accelerated heartbeat), and so forth. As with *in vivo* exposure, the client is asked to repeat the scenario until there is a significant reduction in anxiety relative to initial ratings. This typically takes 45–60 min (Rothbaum, Foa, Riggs, Murdock, and Walsh, 1992). However, it bears repeating that anxiety reduction, as opposed to elapsed time, dictates the length of an exposure session.

Although the number of sessions required for successful exposure therapy varies by client, the treatment developed by Foa and Rothbaum (1998) consists of nine 90-min sessions, the first two of which are devoted to information gathering and providing a rationale for exposure therapy to clients. Because of the lengths that trauma victims will go to in order to avoid thinking about or being exposed to reminders of their traumatic events, the importance of providing a compelling rationale for exposure therapy cannot be emphasized enough. More detailed descriptions of exposure-based therapies for treating ASD and PTSD are available (e.g., Foa and Rothbaum, 1998); however, these procedures should not be attempted in the absence of intensive training and supervision by clinicians well versed in exposure-based techniques.

Falsetti and Resnick (2000) also have obtained preliminary support for the efficacy of an intervention that includes interoceptive exposure strategies as well as strategies to provide exposure to cognitions and memories of assault and behaviors that have been avoided following assault or other crime. Some components of the treatment addressing cognitions and trauma-related memory exposure were adapted from Resick and Schnicke (1993), including the strategy of writing about the traumatic event. This treatment was designed for those exposed to traumatic events who have developed PTSD and co-morbid panic attacks. The interoceptive exposure phase of treatment was adapted from Barlow and Craske's (1989) treatment for panic disorder and involves having clients practice a set of exercises, such as hyperventilation, that will evoke physical sensations similar to those they experience during a panic attack or when exposed to trauma-related cues. Once clients have mastered interoceptive exposure to relevant physiological cues, they proceed to cognitive and behavioral exposure elements of treatment (Falsetti and Resnick, 2000).

Despite the fact that exposure-based therapy techniques have repeatedly been shown to effectively treat symptoms of PTSD and ASD, and have also been shown to result in greater treatment gains than other commonly used interventions for these disorders, these techniques tend to be underutilized by practitioners (Foy *et al.*, 1996). Frequently cited reasons for not using exposure-based techniques, such as concerns that clients will be inordinately distressed or may have crisis reactions such as suicidal ideation, appear to be based more on myth than fact. Empirical evaluations of these reactions have not substantiated such concerns (Foy *et al.*, 1996).

ACCEPTANCE-BASED INTERVENTIONS

Among behaviorally oriented clinicians, a great deal of attention has recently been given to acceptance-based approaches for treating problems of emotional or experiential avoidance (Hayes, Strosahl, and Wilson, 1999). Experiential avoidance can be understood as an unwillingness to experience unpleasant psychological events, including thoughts, memories, feelings, and physiological states. Certainly, this concept characterizes the experiences that lead sexual assault victims to seek treatment.

An acceptance-based approach to working with rape victims is offered as a contrasting alternative to the 'control' strategies described above. Acceptance involves abandoning the agenda of change that is characteristic of the aforementioned techniques. It requires the client (and the therapist) to be open to one's emotional and cognitive experiences.

Hayes *et al.* (1999) have developed a treatment called Acceptance and Commitment Therapy (ACT) that is based on principles of experiential avoidance and acceptance strategies. ACT is a collection of exercises, metaphors, and other techniques, many borrowed from non-behavioral traditions, which are implemented from a coherent theory or philosophy of the human condition. In this treatment approach, psychological distress *per se* is not viewed as the primary problem. Rather, it is the individual's avoidance of emotions and other private events that are addressed in treatment (Follette, 1992; Hayes, 1987; Hayes *et al.*, 1999; Walser and Hayes, 1999). The techniques are used to promote acceptance of 'normal' psychological processes, in contrast to viewing the psychological processes (e.g., thoughts, feelings, memories) as pathological. Versions of the treatment approach have been applied to clients with a history of trauma (Follette, 1992). The therapy centers on facilitating clients' acceptance of their histories, emotions, and thoughts while continuing to engage in behavioral change.

Treatment Termination

Ending treatment with sexual assault victims can raise some unique and important considerations. Prior to terminating treatment, it is important to assess clients' perceptions of their progress and evaluate the need for additional sessions. It is appropriate to conduct additional sessions if the client may profit from them. One strategy is to conduct 'booster' sessions across a longer period of time. By spacing out additional sessions, clients are given an opportunity to practise specific skills, evaluate their effectiveness, and identify ongoing problem areas.

In general, termination sessions should focus on highlighting the client's progress in treatment and reviewing the specific techniques covered in treatment (Foa and Rothbaum, 1998). Identifying skills that require particular reinforcement can assist the therapist in deciding how to allocate time to reviewing these specific skills. Termination sessions can also provide an opportunity to solicit feedback from clients about the relative usefulness of the treatment components. Helping clients anticipate future stressors or difficulties, as well as generating strategies for managing them, can be a fruitful strategy for promoting success. Arrangements for follow-up should also be discussed with clients prior to ending treatment. Clients should be encouraged to contact the therapist and utilize additional sessions in the event further services are warranted.

EARLY INTERVENTION

Effectiveness of Early Interventions with Victims of Rape

While early intervention programs are generally presumed to be effective, research evaluating the efficacy of early intervention programs for sexual assault victims actually has yielded mixed results; for example, a brief behavioral intervention program implemented at 3 weeks post-rape did not reveal differences between women receiving the treatment and a no-treatment comparison group at the 3-month follow-up (Kilpatrick and Veronen, 1984). Similarly, Foa and colleagues (1995) compared a brief prevention program with a matched control group with victims of rape or physical assault who were less than 1 month post-assault. While lower rates of PTSD were found among the treatment group versus the comparison group at 2 months post-assault, the groups did not differ in terms of PTSD diagnosis at the assessment almost 6 months post-assault (Foa, Hearst-Ikeda, and Perry, 1995). These studies indicate that the strategies described earlier, that address coping in physiological, cognitive, and behavioral channels and that include exposure to realistically non-dangerous cues, can be implemented with acute assault survivors. More research needs to be conducted to further evaluate the efficacy of such early intervention strategies, controlling for intensity of initial post-assault distress or ASD diagnosis. This strategy was used by Bryant, Harvey, Baston, Dang, and Sackville (1998) who found that a five-session CBT treatment implemented within 2 weeks post-trauma was effective in reducing subsequent rates of PTSD among automobile accident victims, all of whom met criteria for ASD.

Video-based Intervention in Emergency Department Setting

Resnick, Acierno, Holmes, Kilpatrick, and Jager (1999) are currently conducting a study evaluating an early intervention program for sexual assault victims within an emergency department medical setting. The program is multidisciplinary and is integrated within a setting that provides forensic medical care to sexual assault victims within 72 hours post-rape. The program is co-ordinated with services provided by the local rape crisis center and Sexual Assault Nurse and Physician Examiner team. Due to the many rape-related cues that are present during a forensic medical exam, the exam procedures may exacerbate distress. Therefore, one component of the video-based intervention is designed to reduce anxiety in the medical setting that may have a mediating

impact on the development of longer term mental health problems. The brief cognitive-behavioral intervention offered prior to the medical examination is delivered in a video format. Therefore, the content of the intervention is highly standardized and implemented relatively easily. The video is approximately 20 min in length and includes psychoeducation, modeling, and other cognitive-behavioral strategies, including instructions in exposure techniques to realistic, safe, rape-related cues.

To demonstrate the efficacy of this brief intervention program, eligible rape victims who present at the emergency medical setting within 72 hours post-assault are randomly assigned to either the video-intervention or to standard medical treatment and rape crisis advocacy support as usual. A subjective measure of anxiety is administered both pre- and post-emergency medical exam. In addition, an extensive assessment of psychological symptoms, victimization history, substance use, and other mental health factors is conducted at 6 weeks and again at 6 months post-rape.

Preliminary data indicated that psychological distress at the time of the medical exam was strongly related to the presence of PTSD symptoms and other symptomatology at the 6-week follow-up. In addition, the data suggested that, after controlling for pre-exam distress, women in the video condition were less distressed following the medical examination than women in the control condition (Resnick *et al.*, 1999). These preliminary data indicate that an intervention that is delivered as early as possible post-rape (within 72 hours) may be effective in reducing longer term negative mental health outcomes. This study also employed the strategy of controlling for initial distress within hours post-rape when evaluating the effect of this early intervention.

ADDITIONAL CONSIDERATIONS WHEN TREATING RAPE VICTIMS

PTSD and Substance Abuse

The relationship between substance abuse and PTSD among sexual assault victims has been well documented (Kessler, Sonnega, Bromet, Hughes, and Nelson, 1995; Kilpatrick, Acierno, Resnick, Saunders, and Best, 1997). Not only is a diagnosis of PTSD associated with increased risk for substance abuse, but individuals with substance abuse problems are also at increased risk for sexual victimization (Kilpatrick *et al.*, 1997; Polusny and Follette, 1995). Given this strong relationship between PTSD and substance abuse, it is essential that clinicians assess for substance use and appropriately intervene when working with individuals who have been sexually assaulted. Sexual assault victims may use alcohol

or other drugs as a way to cope with overwhelming psychological distress. When substance use is used as a strategy to avoid negative affect associated with reminders of the sexual assault, such behavior interferes with the goals of a cognitive-behavioral approach to treatment. Therefore, treatment effectiveness is maximized when clients maintain a period of abstinence for a stable period of time prior to doing trauma-specific therapy. In cases where substance abuse has been a long-standing problem, a referral for intensive, specialized substance abuse treatment may be required. The important issue is that substance abuse issues are addressed when providing treatment for PTSD and other trauma-related problems (Ruzek, Polusny, and Abueg, 1998).

RISK FOR REVICTIMIZATION

Women with a prior history of sexual victimization are at significantly greater risk for being revictimized than women without such a history. In one study investigating risk factors for sexual assault, Koss and Dinero (1989) found that 66% of the women who reported rape or attempted rape also had a prior history of sexual victimization. In the Koss and Dinero study, only the variables indicating past traumatic experiences improved predictions over base rates for identifying rape victims. Greene and Navarro (1998) reported similar findings. In a prospective study investigating protective and risk factors for sexual assault, prior victimization was the strongest predictor of future incidents of sexual victimization.

Revictimization is also associated with a number of psychological consequences. Revictimized women had higher levels of trauma-related symptoms than women who reported only one type of victimization experience (Gold, Milan, Mayall, and Johnson, 1994). Moreover, Follette, Polusny, Bechtle, and Naugle (1996) offer evidence for the cumulative impact of multiple victimization experiences. Women who had experienced multiple types of victimization experiences reported increasing levels of post-trauma symptoms. Additionally, according to Cloitre, Scarvalone, and Difede (1997), revictimized subjects are more likely to attempt suicide and experience problems in areas such as intimacy and trust than either women who had never been sexually victimized or sexually assaulted women without a prior victimization history.

These data support the strong need for treatment components that specifically address risk factors for revictimization and introduce skills to minimize risk. It has been hypothesized that one factor that places individuals at risk for revictimization is an inability to recognize and respond to environmental cues that suggest risk or danger (Naugle, 1999; Wilson, Calhoun, and Bernat, 1999). Sexual assault victims may

benefit from education regarding high-risk situations, as well as from building skills for confronting risky situations when they occur. Cloitre (1998) has proposed one treatment model for revictimized women that combines prolonged exposure techniques with additional affect regulation and interpersonal skills. Such skills training focuses on enhancing emotional awareness, including teaching clients to identify and label feelings and providing skills to assist them in modulating negative emotions and tolerating distress associated with situations that call for protective behavior. In addition, the skills training focuses on strengthening interpersonal skills, including assertive behavior and conflict-resolution skills.

CONCLUSION

The high rates of trauma-related symptomatology among rape victims suggest the need for effective treatment strategies to reduce psychological distress and to promote successful functioning. The cognitive-behavioral strategies outlined in this chapter have been demonstrated to be successful at strengthening the coping skills of rape victims and subsequently alleviating PTSD and acute stress symptoms. Many of the treatment components we have described have been incorporated in comprehensive treatment packages for rape victims. In cases where these strategies are not included in the treatment package, it has been our experience that the addition of these coping skills enhances the effectiveness of other treatment strategies. Therefore, the cognitive-behavioral interventions described above offer a number of advantages to the clinician and to the clients they serve.

REFERENCES

Barlow, D.H. and Craske, M.G. (1989) *Master of your anxiety and panic*. Albany, NY: Graywind.

Beck, A.T., Rush, A.J., Shaw, B.F., and Emery, G. (1979) *Cognitive therapy of depression*. New York: Guilford Press.

Bryant, R.A., Harvey, A.G., Basten, C., Dang, S.T., and Sackville, T. (1998) Treatment of acute stress disorder: A comparison of cognitive-behavioral therapy and supportive counseling. *Journal of Consulting and Clinical Psychology*, 66, 862–866.

Calhoun, K.S. and Resick, P.A. (1993) Post-traumatic stress disorder. In D. Barlow (ed.) *Clinical handbook of psychological disorders* (2nd edn) New York: Guilford Press.

Cloitre, M. (1998) Sexual revictimization: Risk factors and prevention. In V.M. Follette, J.I. Ruzek, and F.R. Abueg (eds) *Cognitive-behavioral therapies for trauma* (pp. 278–304). New York: Guilford Press.

Cloitre, M., Scarvalone, P., and Difede, J. (1997) Post-traumatic stress disorder, self,

and interpersonal dysfunction among sexually revictimized women. *Journal of Traumatic Stress*, **10**, 435–450.

Falsetti, S.A. and Resnick, H.S. (1997) Frequency and severity of panic attack symptoms in a treatment seeking sample of trauma victims. *Journal of Traumatic Stress*, **10**, 683–689.

Falsetti, S.A. and Resnick, H.S. (2000) Treatment of PTSD using cognitive and cognitive behavioral therapies. *Journal of Cognitive Psychotherapy: An International Quarterly*, **14**, 97–122.

Foa, E.B. and Rothbaum, B.O. (1998) *Treating the trauma of rape: Cognitive-behavioral therapy for PTSD*. New York: Guilford Press.

Foa, E.B., Hearst-Ikeda, D., and Perry, K.J. (1995) Evaluation of a brief cognitive-behavioral program for the prevention of PTSD in recent sexual assault victims. *Journal of Consulting and Clinical Psychology*, **63**, 948–955.

Foa, E.B., Steketee, G., and Rothbaum, B.O. (1989) Behavioral/cognitive conceptualization of post-traumatic stress disorder. *Behavior Therapy*, **20**, 155–176.

Follette, V. M. (1992) Survivors of child sexual abuse: Treatment using a contextual analysis. In S.C. Hayes, N.S. Jacobson, V.M. Follette, and M.J. Dougher (eds) *Acceptance and change: Content and context in psychotherapy* (pp. 255–268). Reno, NV: Context Press.

Follette, V.M., Polusny, M.A., Bechtle, A.E., and Naugle, A.E. (1996) Cumulative trauma: The impact of child sexual abuse, adult sexual assault, and spouse abuse. *Journal of Traumatic Stress*, **9**, 25–35.

Foy, D.W., Kagan, B., McDermott, C., Leskin, G., Sipprelle, R., and Paz, G. (1996) Practical parameters in the use of flooding for treating chronic PTSD. *Clinical Psychology and Psychotherapy*, **3**, 169–175.

Gold, S.R., Milan, L.D., Mayall, A., and Johnson, A.E. (1994) A cross-validation study of the Trauma Symptom Checklist: The role of mediating variables. *Journal of Interpersonal Violence*, **9**, 12–26.

Goldfried, M.R. and Davison, G.C. (1994) *Clinical Behavior Therapy*. New York: John Wiley and Sons.

Greene, D.M. and Navarro, R.L. (1998) Situation-specific assertiveness in the epidemiology of sexual victimization among university women. *Psychology of Women Quarterly*, **22**, 589–604.

Hayes, S.C. (1987) A contextual approach to therapeutic change. In N.S. Jacobson (ed.) *Psychotherapists in clinical practice: Cognitive and behavioral perspectives* (pp. 327–387). New York: Guilford Press.

Hayes, S.C., Strosahl, K.D., and Wilson, K.G. (1999) *Acceptance and commitment therapy: An experiential approach to behavior change*. New York: Guilford Press.

Jacobson, E. (1938) *Progressive relaxation*. Chicago: University of Chicago Press.

Keane, T.M., Zimering, R.T., and Caddell, J.M. (1985). A behavioral formulation of posttraumatic stress disorder. *The Behavior Therapist*, **8**, 9–12.

Kessler, R.C., Sonnega, A., Bromet, E., Hughes, M., and Nelson, C.B. (1995) Post-traumatic stress disorder in the National Comorbidity Survey. *Archives of General Psychiatry*, **52**, 1048–1060.

Kilpatrick, D.G. and Veronen, L.J. (1984) Treatment for rape-related problems: Crisis intervention is not enough. In L. Cohen, W. Claiborn, and G. Specter (eds) *Crisis intervention (2nd edn): Community-clinical psychology series*. New York: Human Services Press.

Kilpatrick., D.G, Acierno, R., Resnick, H.S., Saunders, B.E., and Best, C.L. (1997) A 2-year longitudinal analysis of the relationships between violent assault and substance use in women. *Journal of Consulting and Clinical Psychology*, 65, 834–847.

Kilpatrick, D.G., Veronen, L.J., and Resick, P.A. (1982) Psychological sequelae to rape: Assessment and treatment strategies. In D.M. Doleys, R.L. Meredith, and A.R. Ciminero (eds) *Behavioral medicine and treatment strategies* (pp. 473–497). New York: Plenum Press.

Koss, M.P. and Dinero, T. E. (1989) Discriminant analysis of risk factors for sexual victimization among a national sample of college women. *Journal of Consulting and Clinical Psychology*, 57, 242–250.

McCann, I.L., Sakheim, D.K., and Abrahamson, D.J. (1988) Trauma and victimization: A model of psychological adaptation. *The Counseling Psychologist*, 16, 531–594.

Meichenbaum, D.H. (1985) *Stress inoculation training*. New York: Pergamon Press.

Naugle, A.E. (1999) Identifying behavioral risk factors for repeated victimization using video-taped stimulus materials. Unpublished doctoral dissertation, University of Nevada, Reno.

Naugle, A.E. and Follette, W.C. (1999) A functional analysis of trauma symptoms. In V.M. Follette, J.I. Ruzek, and F.R. Abueg (eds) *Cognitive-behavioral therapies for trauma* (pp. 48–73). New York: Guilford Press.

Polusny, M.A. and Follette, V. M. (1995) Long-term correlates of child sexual abuse: Theory and review of the empirical literature. *Applied and Preventive Psychology*, 4, 143–166.

Resick, P.A. and Schnicke, M.K. (1993) *Cognitive processing therapy for rape victims: A treatment manual*. Newbury Park, CA: Sage Publications.

Resnick, H., Acierno, R., Holmes, M., Kilpatrick, D.G., and Jager, N. (1999) Prevention of post rape symptomatology: Preliminary findings of a controlled acute rape treatment study. *Journal of Anxiety Disorders*, 13, 359–370.

Rothbaum, B.O. and Foa, E.B. (1992) Exposure therapy for rape victims with Post-Traumatic Stress Disorder. *The Behavior Therapist*, 219–222.

Rothbaum, B.O., Foa, E.B., Riggs, D., Murdock, T., and Walsh, W. (1992) A prospective examination of post-traumatic stress disorder in rape victims. *Journal of Traumatic Stress*, 5, 455–475.

Ruzek, J.I., Polusny, M.A., and Abueg, F.R. (1998) Assessment and treatment of concurrent posttraumatic stress disorder and substance abuse. In V.M. Follette, J.I. Ruzek, and F.R. Abueg (eds) *Cognitive-behavioral therapies for trauma* (pp. 226–255). New York: Guilford Press.

Veronen, L.J. and Kilpatrick, D.G. (1983) Stress management for rape victims. In D. Meichenbaum and M.E. Jaremko (eds) *Stress reduction and prevention* (pp. 341–374). New York: Plenum Press.

Walser, R.D. and Hayes, S.C. (1999) Acceptance and trauma survivors: Applied issues and problems. In V.M. Follette, J.I. Ruzek, and F.R. Abueg (eds) *Cognitive-behavioral therapies for trauma* (pp. 256–277). New York: Guilford Press.

Wilson, A.E., Calhoun, K.S., and Bernat, J.A. (1999) Risk recognition and trauma-related symptoms among sexually revictimized women. *Journal of Consulting and Clinical Psychology*, 67, 705–710.